

MINES AND QUARRIES

■ Early Egyptian building materials

Early Egyptian buildings were made of clay and reeds. Structures needing more support, such as mats and woven lattices, had bundles of reeds lashed together set in clay bases on either side. Wood was quite scarce, imported from Lebanon even in ancient times. By the First Dynasty, tombs and palaces were made of sun-dried mud-brick. Even later when palaces, tombs, and temples were made from stone, mud-brick was used to make the homes of the Egyptians.

■ Stone for building

The Step Pyramid at Saqqara was the first known monumental stone building in the world, constructed during the Third Dynasty. After its construction, stone was used almost exclusively for tombs and temples. Stone was transported on the Nile from quarries in Nubia—within Egypt itself—the eastern desert regions, and the Sinai. Nubia and the eastern desert supplied the majority of diorite, dolerite, schists, porphyries, basalts, granites, quartzites and other hard stones although there were limited sources for some of these along the Nile. Limestone came from Tura near Memphis, sandstone and alabaster (calcite) mainly from Hatnub, and pink granite from Aswan.

■ Quarrying

Quarries in Egypt belonged to Pharaoh, and Pharaoh determined which areas would be worked. Quarrying was done without the aid of iron tools. Grooves were cut in the rock with either a copper chisel and mallet or a diorite pick. Then wooden wedges were driven into the groove, and water was poured over them, causing the wood to swell and split the rock. Another method involved fire in the grooves to heat the rock. Cold water poured on the heated rock would cause stone to crack. The stones were rough dressed at the quarry, then hauled by sledges to the Nile, where they were transported to their designated location. Convicted criminals and prisoners were sent to some isolated quarries to do hard labor.

■ Other valuable minerals

Necessary to the embalming of mummies was the natron found near Wadi Natrun and at another site south of Thebes. Metals such as gold came

from mines in Nubia; iron (which was not used until almost the end of the dynastic period) from Meroe, the Sinai, and near Elephantine; tin, lead, and, copper came from the eastern desert. Egyptian control of the nearest gold sources was a main reason for their influence in the ancient world. One foreign ruler wrote to Pharaoh how it was well known that in Egypt gold was as common as dust. Turquoise and emeralds were mined in the eastern desert. Other precious commodities were obtained through trade. Examples: lapis lazuli, a beautiful blue stone from Afghanistan; silver from Syria; and obsidian, a volcanic black glass, from southern Ethiopia.

